## Summary of Water Conditions May 1, 2014

Some rain and snow occurred during April, but less than average at about 65 percent of normal. The May 1 snow water content average of 15% ties this year with 1990 for the 2<sup>nd</sup> lowest snow water content for the date exceeded only by that of 1977. Runoff during April was about half of average for the month. However, reservoir storage gain was nearly average ending up at around 70 percent overall but down about 25 percent from last year. Runoff forecasts for April through July and for the water year would be the 4<sup>th</sup> lowest in the record, exceeded by 1977, 1924, and 1931. Relatively speaking the drought is worse on the San Joaquin River system; if the forecasts prove out, its 3 year runoff (2012-14) will be about 6 percent less than the previous record set during the 1959-61 drought. The eastern tropical Pacific continued to warm in April with higher likely hood of El Nino next fall but that doesn't guarantee a wet year in 2015.

**Forecasts** of both median April through July and water year runoff are 35 percent of average. April runoff was about 50 percent of normal, but the percentages for later months is expect to decrease rapidly as the remaining slim snowpack melts.

**Snowpack** water content is very poor, about 15 percent of average for the date. Almost none is left in the northern third of the State.

**Precipitation** from October through April stands at about 50 percent of average compared to 75 percent last year. Seasonal rainfall amounts are slightly better in the northern part of the State. April rainfall was about 65 percent of average overall, but amounts were a bit better in the Bay Area and the central and southern Sierra.

**Runoff** to date remains at 35 percent of average, half of that reported last year at this time. April runoff was 50 percent of normal, abetted by some early snowmelt. Estimated runoff of the eight major rivers of the Sacramento-San Joaquin River region in April was 1.71 million acre-feet.

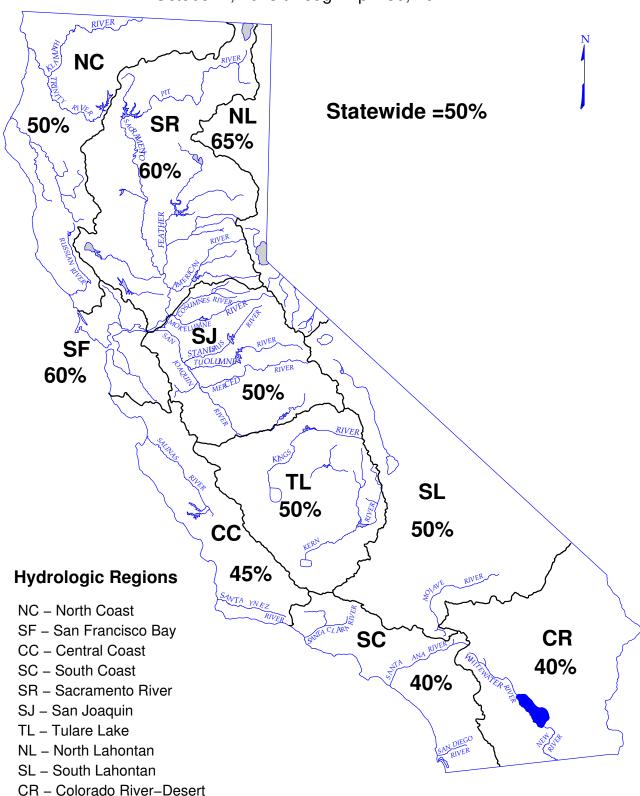
**Reservoir storage** was about 70 percent of average, down from 95 percent reported last year. The lowest reports were across the central portion of the State in the Central Coast and San Joaquin-Tulare regions. Statewide storage increased nearly 1.2 million acre-feet in April, about 90 percent of the normal increase for the month.

### SUMMARY OF WATER CONDITIONS IN PERCENT OF AVERAGE

HYDROLOGIC REGION	PRECIPITATION OCTOBER 1 TO DATE	May 1 SNOW WATER CONTENT	May 1 RESERVOIR STORAGE	RUNOFF OCTOBER 1 TO DATE	APR-JULY RUNOFF FORECAST	WATER YEAR RUNOFF FORECAST
NORTH COAST	50	0	65	35	25	30
SAN FRANCISCO BAY	60		85	20		
CENTRAL COAST	45		25	5		
SOUTH COAST	40		75	15		
SACRAMENTO RIVER	60	10	75	40	40	40
SAN JOAQUIN RIVER	50	20	70	35	30	30
TULARE LAKE	50	15	50	30	30	25
NORTH LAHONTAN	65	10	50	50	30	35
SOUTH LAHONTAN	50	20	95	60	45	50
COLORADO RIVER-DESERT	40					
STATEWIDE	50	15	70	35	35	35

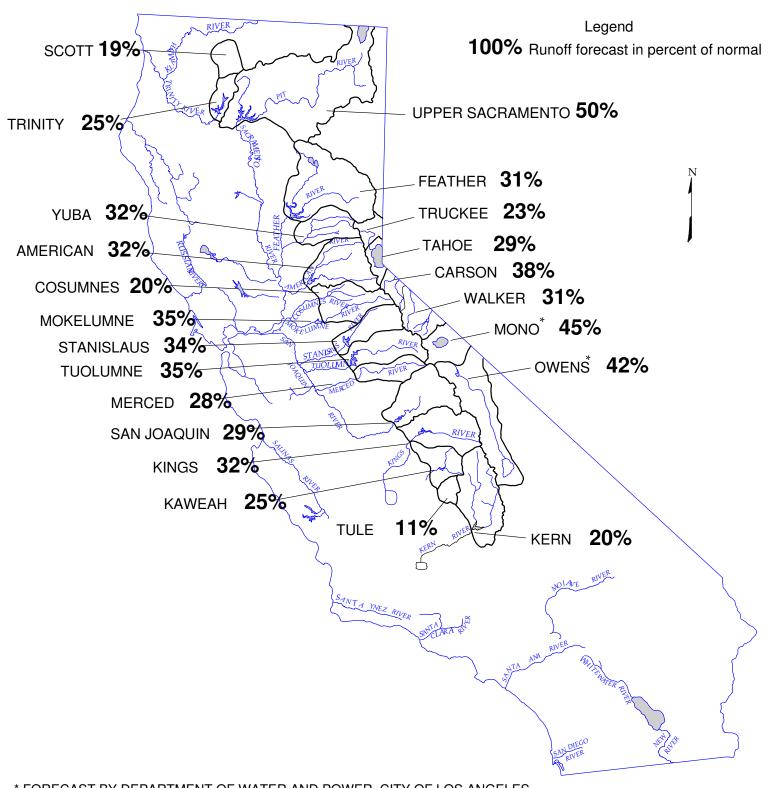
## DEPARTMENT OF WATER RESOURCES CALIFORNIA COOPERATIVE SNOW SURVEYS SEASONAL PRECIPITATION

IN PERCENT OF AVERAGE TO DATE October 1, 2013 through April 30, 2014



## DEPARTMENT OF WATER RESOURCES CALIFORNIA COOPERATIVE SNOW SURVEYS

# FORECAST OF APRIL – JULY UNIMPAIRED SNOWMELT RUNOFF May 1, 2014



<sup>\*</sup> FORECAST BY DEPARTMENT OF WATER AND POWER, CITY OF LOS ANGELES

#### MAY 1, 2014 FORECASTS **APRIL-JULY UNIMPAIRED RUNOFF**

	Unimpaired Runoff in 1,000 Acre-Feet (1)						
HYDROLOGIC REGION		ISTORICA			FORECAST		
and Watershed	50 Yr	Max	Min	Apr-Jul	Pct	80	
	Avg	of	of	Forecasts	of	Proba	•
	(2)	Record	Record		Avg	Rang	e (1)
North Coast					0=0/	400	
Trinity River at Lewiston Lake	651	1,593	80	160	25%	120 -	290
SACRAMENTO RIVER							
Upper Sacramento River Sacramento River at Delta above Shasta Lake	302	711	39	100	33%		
McCloud River above Shasta Lake	392	850	185	210	54%		
Pit River near Montgomery Creek + Squaw Creek	1,046	2,098	480	550	53%		
Total Inflow to Shasta Lake	1,806	3,525	726	900	50%	740 -	1,13
Sacramento River above Bend Bridge, near Red Bluff	2,485	5,075	943	1,210	49%	1,070 -	1,50
Feather River							
Feather River at Lake Almanor near Prattville (3)	333	675	120	110	33%		
North Fork at Pulga (3)	1,028	2,416	243	320	31%		
Middle Fork near Clio (4) South Fork at Ponderosa Dam (3)	86 110	518 267	4 13	25 30	29% 27%		
Feather River at Oroville	1,758	4,676	392	<b>540</b>	31%	460 -	78
Yuba River	1,700	4,070	002	040	0170	400	, 0
North Yuba below Goodyears Bar	279	647	51	90	32%		
Inflow to Jackson Mdws and Bowman Reservoirs (3)	112	236	25	40	36%		
South Yuba at Langs Crossing (3)	233	481	57	80	34%		
Yuba River near Smartsville plus Deer Creek	996	2,424	200	320	32%	280 -	41
American River	000	740	40	70	070/		
North Fork at North Fork Dam (3) Middle Fork near Auburn (3)	262 522	716 1,406	43 100	70 160	27% 31%		
Silver Creek Below Camino Diversion Dam (3)	173	386	37	60	35%		
American River below Folsom Lake	1,231	3,074	229	390	32%	340 -	46
SAN JOAQUIN RIVER							
Cosumnes River at Michigan Bar	128	363	8	25	20%	20 -	5
Mokelumne River	120	000	Ū	20	2070	20	O
North Fork near West Point (5)	437	829	104	150	34%		
Total Inflow to Pardee Reservoir	461	1,065	102	160	35%	120 -	22
Stanislaus River							
Middle Fork below Beardsley Dam (3)	334	702	64	110	33%		
North Fork Inflow to McKays Point Dam (3)	224	503	34	70	31%		
Stanislaus River below Goodwin Reservoir (9)	699	1,710	116	240	34%	195 -	34
Tuolumne River Cherry Creek & Eleanor Creek near Hetch Hetchy	215	727	07	120	38%		
Tuolumme River near Hetch Hetchy	315 604	1,392	97 153	120 240	36% 40%		
Tuolumne River below La Grange Reservoir (9)	1,221	2,682	301	430	35%	330 -	59
Merced River	.,	2,002	001	100	0070	000	00
11101000 111101				440	30%		
Merced River at Pohono Bridge	372	888	80	110			
Merced River at Pohono Bridge Merced River below Merced Falls (9)	372 636	888 1,587	80 123	110 <b>175</b>	28%	135 -	28
Merced River below Merced Falls (9) San Joaquin River					28%	135 -	28
Merced River below Merced Falls (9)  San Joaquin River San Joaquin River at Mammoth Pool (7)	636 1,026	1,587 2,279	123 235	<b>175</b> 330	28% 32%	135 -	28
Merced River below Merced Falls (9)  San Joaquin River San Joaquin River at Mammoth Pool (7) Big Creek below Huntington Lake (8)	636 1,026 91	1,587 2,279 264	123 235 11	330 30	28% 32% 33%	135 -	28
Merced River below Merced Falls (9)  San Joaquin River San Joaquin River at Mammoth Pool (7) Big Creek below Huntington Lake (8) South Fork near Florence Lake (7)	636 1,026 91 201	1,587 2,279 264 511	123 235 11 58	330 30 60	28% 32% 33% 30%		28
Merced River below Merced Falls (9)  San Joaquin River San Joaquin River at Mammoth Pool (7) Big Creek below Huntington Lake (8) South Fork near Florence Lake (7) San Joaquin River inflow to Millerton Lake	636 1,026 91	1,587 2,279 264	123 235 11	330 30	28% 32% 33%	135 <i>-</i> 290 <i>-</i>	
Merced River below Merced Falls (9)  San Joaquin River  San Joaquin River at Mammoth Pool (7)  Big Creek below Huntington Lake (8)  South Fork near Florence Lake (7)  San Joaquin River inflow to Millerton Lake  TULARE LAKE	636 1,026 91 201	1,587 2,279 264 511	123 235 11 58	330 30 60	28% 32% 33% 30%		28 54
Merced River below Merced Falls (9)  San Joaquin River San Joaquin River at Mammoth Pool (7) Big Creek below Huntington Lake (8) South Fork near Florence Lake (7) San Joaquin River inflow to Millerton Lake  TULARE LAKE Kings River	636 1,026 91 201 1,258	1,587 2,279 264 511 3,355	123 235 11 58 262	330 30 60 370	28% 32% 33% 30% 29%		
Merced River below Merced Falls (9)  San Joaquin River San Joaquin River at Mammoth Pool (7) Big Creek below Huntington Lake (8) South Fork near Florence Lake (7) San Joaquin River inflow to Millerton Lake  TULARE LAKE Kings River North Fork Kings River near Cliff Camp (3)	1,026 91 201 1,258	1,587 2,279 264 511 3,355	123 235 11 58 262	330 30 60 370	28% 32% 33% 30% 29%	290 -	54
Merced River below Merced Falls (9)  San Joaquin River San Joaquin River at Mammoth Pool (7) Big Creek below Huntington Lake (8) South Fork near Florence Lake (7) San Joaquin River inflow to Millerton Lake  TULARE LAKE Kings River North Fork Kings River near Cliff Camp (3) Kings River below Pine Flat Reservoir	636 1,026 91 201 1,258 239 1,236	1,587 2,279 264 511 3,355 565 3,113	123 235 11 58 262 50 274	330 30 60 370 80 400	28% 32% 33% 30% 29% 33% 32%	290 -	5 <u>4</u>
Merced River below Merced Falls (9)  San Joaquin River San Joaquin River at Mammoth Pool (7) Big Creek below Huntington Lake (8) South Fork near Florence Lake (7) San Joaquin River inflow to Millerton Lake  TULARE LAKE Kings River North Fork Kings River near Cliff Camp (3) Kings River below Pine Flat Reservoir  Kaweah River below Terminus Reservoir	636 1,026 91 201 1,258 239 1,236 290	1,587 2,279 264 511 3,355 565 3,113 814	123 235 11 58 262 50 274 62	330 30 60 370 80 400 72	28% 32% 33% 30% 29% 33% 32% 25%	290 - 310 - 61 -	54 52 11
Merced River below Merced Falls (9)  San Joaquin River San Joaquin River at Mammoth Pool (7) Big Creek below Huntington Lake (8) South Fork near Florence Lake (7) San Joaquin River inflow to Millerton Lake  TULARE LAKE Kings River North Fork Kings River near Cliff Camp (3) Kings River below Pine Flat Reservoir Kaweah River below Terminus Reservoir Tule River below Lake Success	636 1,026 91 201 1,258 239 1,236	1,587 2,279 264 511 3,355 565 3,113	123 235 11 58 262 50 274	330 30 60 370 80 400	28% 32% 33% 30% 29% 33% 32%	290 -	54 52 11
Merced River below Merced Falls (9)  San Joaquin River San Joaquin River at Mammoth Pool (7) Big Creek below Huntington Lake (8) South Fork near Florence Lake (7) San Joaquin River inflow to Millerton Lake  TULARE LAKE Kings River North Fork Kings River near Cliff Camp (3) Kings River below Pine Flat Reservoir  Kaweah River below Terminus Reservoir	636 1,026 91 201 1,258 239 1,236 290	1,587 2,279 264 511 3,355 565 3,113 814	123 235 11 58 262 50 274 62	330 30 60 370 80 400 72	28% 32% 33% 30% 29% 33% 32% 25%	290 - 310 - 61 -	

<sup>(1)</sup> See inside back cover for definition (2) All 50 year averages are based on years 1961-2010 unless otherwise noted (3) 50 year average based on years 1941-90 (4) 44 year average based on years 1936-79

<sup>(5) 36</sup> year average based on years 1936-72 (6) 45 year average based on years 1936-81 (7) 50 year average based on years 1953-2002 (8) 50 year average based on years 1946-1995

#### MAY 1, 2014 FORECASTS WATER YEAR UNIMPAIRED RUNOFF

						nimpaire	ed Runo	ff in 1,0		Feet (1					
	ISTORIC		0 . 1	1	-	DIS	TRIBUT	ION	1	· ·		10/	FOREC		,
50 Yr	Max	Min	Oct	F. 6	N 4 = ·-	A	N4	l	1, -1	Δ	0	Water	Pct	80 9	
Avg	of	of	Thru	Feb *	Mar *	Apr *	May	Jun	Jul	Aug	Sep	Year	of	Probal	-
(2)	Record	Record	Jan			•						Forecasts	Avg	Range	(1)
1376	2990	200	38	49	154	80	60	17	3	0	0	401	29%	361 -	535
876 1,200 3,082 5,979 8,727	1,965 2,353 5,150 10,796 17,180	165 557 1,484 2,479 3,294	697 922	284 419	588 877	356 529	200 260	175 230	169 191	145 160	141 162	2,755 3,750	46% 43%	2,525 - 3,570 -	3,080 4,135
780 2,417 219 291 4,523	1,269 4,400 637 562 9,492	366 666 24 32 994	308	258	462	290	110	75	65	60	52	1,680	37%	1,545 -	1,975
564 181 379 2,329	1,056 292 565 4,926	102 30 98 369	91	188	245	192	95	25	8	1	0	845	36%	804 -	945
616 1,070 318 2,683	1,234 2,575 705 6,382	66 144 59 349	48	237	232	233	125	29	3	0	0	907	34%	857 -	990
385	1,253	20	7	20	28	19	5	1	0	0	0	80	21%	75 -	108
626 751	1,009 1,800	197 129	9	33	47	76	74	9	1	0	0	249	33%	209 -	310
471	929	88													
1,167	2,952	155	25	36	62	111	95	31	3	0	0	363	31%	318 -	470
461 770 1,943	1,147 1,661 4,631	123 258 383	20	52	94	170	200	50	10	3	1	600	31%	497 -	775
461 1,007	1,020 2,787	92 150	10	13	33	75	75	20	5	0	0	231	23%	191 -	345
1,337 112 248 1,831	2,964 298 653 4,642	308 14 71 362	45	23	46	111	170	70	19	11	5	500	27%	410 -	680
284 1,729	607 4,287	58 386	39	20	45	125	185	70	20	10	6	520	30%	426 -	650
456	1,402	94	8	6	12	28	31	10	3	1	1	100	22%	88 -	146
147	615	16	3	2	3	4	3	0	0	0	0	15	10%	13 -	20
558 733	1,577 2,318	163 175	37	11	17	26	38	21	10	8	7	175	24%	157 -	225

<sup>(9)</sup> Forecast point names based on USGS gage names. Stanislaus below Goodwin also known as inflow to New Melones, Tuolumne River below La Grange also known as inflow to Don Pedro, Merced River below Merced Falls also known as inflow to McClure.

(10) Coordinated Forecast by National Weather Service California-Nevada River Forecast Center and Department of Water Resources, State of California

\* Unimpaired runoff in months prior to forecast date are based on measured flows

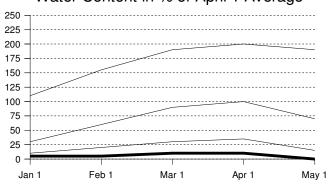
#### MAY 1, 2014 FORECASTS **APRIL-JULY UNIMPAIRED RUNOFF**

APRIL-JULY UNIMPAIRED RUNOFF							
	Apr-Jul Unimpaired Runoff in 1,000						
HYDROLOGIC REGION	H	HISTORICA	<b>AL</b>	FORECAST			
and Watershed	50 Yr	Max	Min	Apr-Jul	Pct		
	Avg	of	of	Forecasts	of		
	(2)	Record	Record		Avg		
NORTH COAST Scott River							
Scott River nr Ft Jones (3)	172	398	22	32	19%		
Klamath River							
Total inflow to Upper Klamath Lake (4)	340	618	84	220	65%		
Total lilliow to Opper Klamati Lake (4)	340	010	04	220	05%		
NORTH LAHONTAN							
Truckee River							
Lake Tahoe to Farad accretions	256	713	52	60	23%		
Lake Tahoe Rise (assuming gates closed, ft)	1.4	5.4	0.2	0.4	29%		
Carson River							
West Fork Carson River at Woodfords	53	135	12	20	38%		
East Fork Carson River near Gardnerville	186	407	43	70	38%		
Walker River							
West Walker River below Little Walker, near Coleville	155	330	35	60	39%		
East Walker River near Bridgeport	63	209	7	8	13%		
SOUTH LAHONTAN							
Owens River Total tributary flow to Owens River (5)	235	579	96	98	42%		

<sup>(1)</sup> See inside back cover for definition

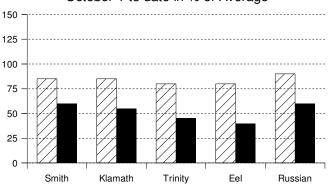
 <sup>(1)</sup> See inside back cover for definition
 (2) All 50 year averages are based on years 1961-2010 unless otherwise noted
 (3) Forecast by National Weather Service California-Nevada River Forecast Center. 30 yr average (1981-2010)
 (4) Forecast by U.S. Natural Resources Conservation Service and National Weather Service California-Nevada River Forecast Center, May through September forecast, 30 year average based on years 1981-2010.
 (5) Forecast by Department of Water and Power, City of Los Angeles, average based on years 1961-2010

#### Water Content in % of April 1 Average



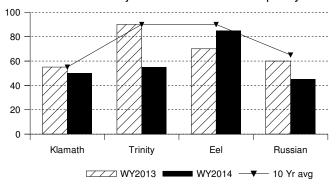
#### Precipitation

#### October 1 to date in % of Average



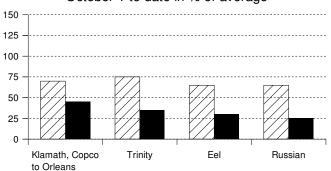
#### Reservoir Storage

#### Contents of major reservoirs in % of capacity



#### Runoff

#### October 1 to date in % of average



#### NORTH COAST REGION

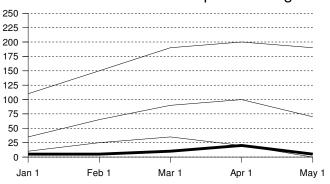
**SNOWPACK**- First of the month measurements made at 10 snow courses indicate an area wide snow water equivalent of less than 1 inch. This is 0 percent of the seasonal April 1 average and 0 percent of the May 1 average. Last year at this time the pack was holding 6.2 inches of water.

**PRECIPITATION** - Seasonal precipitation (October 1 through the end of last month) on this area was 50 percent of normal. Precipitation last month was about 50 percent of the monthly average. Seasonal precipitation at this time last year stood at 85 percent of normal.

**RESERVOIR STORAGE**- First of the month storage in 6 reservoirs was 1.6 million acre-feet which is 65 percent of average. About 50 percent of available capacity was being used. Storage in these reservoirs at this time last year was 105 percent of average.

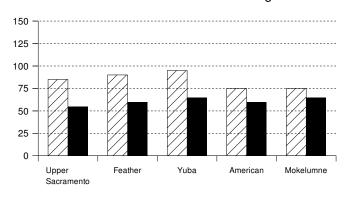
**RUNOFF** -Seasonal runoff of streams draining the area totaled 3.7 million acre-feet which is 35 percent of the average for this period. Last year, runoff for the same period was 70 percent of average.

#### Water Content in % of April 1 Average



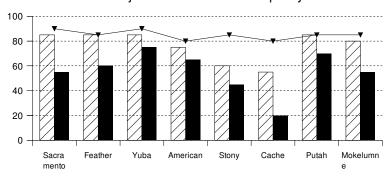
#### Precipitation

#### October 1 to date in % of Average



#### Reservoir Storage

#### Contents of major reservoirs in % of capacity



#### SACRAMENTO RIVER REGION

**SNOWPACK**- First of the month measurements made at 69 snow courses indicate an area wide snow water equivalent of 3.0 inches. This is 5 percent of the seasonal April 1 average and 10 percent of the May 1 average. Last year at this time the pack was holding 3.9 inches of water.

**PRECIPITATION** - Seasonal precipitation (October 1 through the end of last month) on this area was 60 percent of normal. Precipitation last month was about 75 percent of the monthly average. Seasonal precipitation at this time last year stood at 85 percent of normal.

**RESERVOIR STORAGE**- First of the month storage in 43 reservoirs was 9.6 million acre-feet which is 75 percent of average. About 60 percent of available capacity was being used. Storage in these reservoirs at this time last year was 100 percent of average.

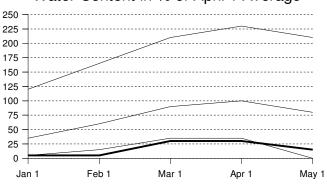
#### Runoff

# October 1 to date in % of average 150 125 100 75 50 25 Shasta Inflow Feather Yuba American Mokelumne

**RUNOFF** - Seasonal runoff of streams draining the area totaled 5.5 million acrefeet which is 40 percent of average for this period. Last year, runoff for the same period was 70 percent of average.

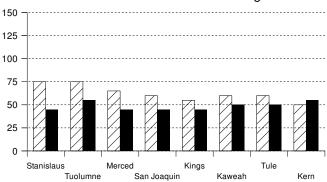
The Sacramento Region 40-30-30 Water Supply Index is forecast to be 4.0 assuming median meteorological conditions for the remainder of the year. This classifies the year as "critical" in the Sacramento Valley according to the State Water Resources Control Board.

#### Water Content in % of April 1 Average



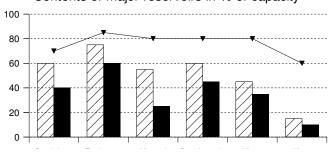
#### Precipitation

#### October 1 to date in % of Average



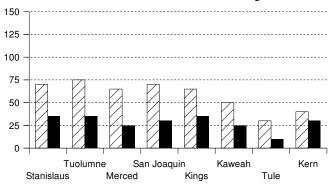
#### Reservoir Storage

Contents of major reservoirs in % of capacity



#### Runoff

#### October 1 to date in % of average



## SAN JOAQUIN RIVER AND TULARE LAKE REGIONS

**SNOWPACK-** First of the month measurements made at 56 **San Joaquin Region** snow courses indicate an area wide snow water equivalent of 7.1 inches. This is 20 percent of the seasonal (April 1) average and 20 percent of the May 1 average. Last year at this time the pack was holding 8.2 inches of water. At the same time 29 **Tulare Lake Region** snow courses indicated a basin-wide snow water equivalent of 2.9 inches which is 10 percent of the average for April 1 and 15 percent of May 1. Last year at this time the basin was holding 1.9 inches of water.

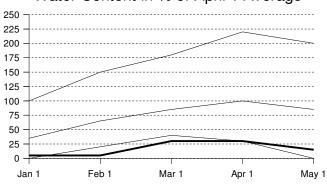
**PRECIPITATION** - Seasonal precipitation (October 1 through the end of last month) on the **San Joaquin Region** was 50 percent of normal.

Precipitation last month was about 75 percent of the monthly average. Seasonal precipitation at this time last year stood at 70 percent of normal. Seasonal precipitation on the **Tulare Lake Region** was 50 percent of normal. Precipitation last month was about 100 percent of the monthly average. Seasonal precipitation at this time last year stood at 55 percent of normal.

**RESERVOIR STORAGE**- First of the month storage in 34 **San Joaquin Region** reservoirs was 5.3 million acre-feet which is 70 percent of average. About 45 percent of available capacity was being used. Storage in these reservoirs at this time last year was 95 percent of average. First of the month storage in 6 **Tulare Lake Region** reservoirs was 552 thousand acre-feet which is 50 percent of average and about 25 percent of available capacity. Storage in these reservoirs at this time last year was 70 percent of average.

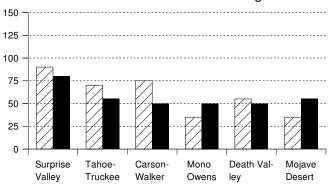
**RUNOFF**- Seasonal runoff of streams draining the **San Joaquin Region** totaled 1.2 million acre-feet which is 35 percent of average for this period. Last year, runoff for the same period was 70 percent of average. Seasonal runoff of streams draining the **Tulare Lake Basin** totaled 388 thousand acre-feet which is 30 percent of average for this period. Last year runoff for this same period was 50 percent of average. The **San Joaquin Region 60-20-20 Water Supply Index** is forecast to be 1.1 assuming 75 percent of median meteorological conditions. This classifies the year as "critical" in the San Joaquin River Region according to the State Water Resources Control Board.

#### Water Content in % of April 1 Average



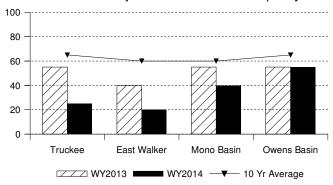
#### Precipitation

#### October 1 to date in % of Average



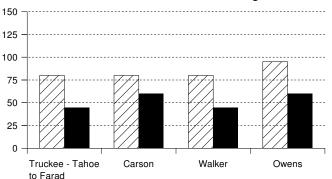
#### Reservoir Storage

#### Contents of major reservoirs in % of capacity



#### Runoff

#### October 1 to date in % of average



## NORTH AND SOUTH LAHONTAN REGIONS

**SNOWPACK-** First of the month measurements made at 5 **North Lahontan Region** snow courses indicate an area wide snow water equivalent of 1.9 inches. This is 10 percent of the seasonal (April 1) average and 10 percent of the May 1 average. Last year at this time the pack was holding 2 inches of water. At the same time 2 **South Lahontan** snow courses indicated a basin-wide snow water equivalent of 2.5 inches which is less than 15 percent of the seasonal (April 1) average and less than 20 percent of the May 1 average. Last year at this time the basin was holding 0.3 inches of water.

**PRECIPITATION** - Seasonal precipitation (October 1 through the end of last month) on the **North Lahontan Region** was 65 percent of normal.

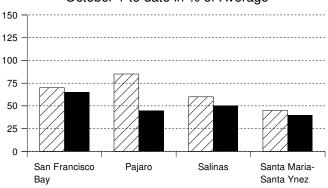
Precipitation last month was about 60 percent of the monthly average. Seasonal precipitation at this time last year stood at 80 percent of normal. Seasonal precipitation on the **South Lahontan** was 50 percent of normal. Precipitation last month was 55 percent of the monthly average. Seasonal precipitation at this time last year stood at 40 percent of normal.

**RESERVOIR STORAGE**- First of the month storage in 5 **North Lahontan** reservoirs was 288 thousand acre-feet which is 50 percent of average. About 25 percent of available capacity was being used. Storage in these reservoirs at this time last year was 100 percent of average. Lake Tahoe was 1.4 feet above its natural rim on May 1. First of the month storage in 8 **South Lahontan** reservoirs was 248 thousand acre-feet which is 95 percent of average and about 60 percent of available capacity. Storage in these reservoirs at this time last year was 95 percent of average.

**RUNOFF**- Seasonal runoff of streams draining the **North Lahontan Region** totaled 210 thousand acre-feet which is 50 percent of average for this period. Last year, runoff for the same period was 75 percent of average. Seasonal runoff of the Owens River in the **South Lahontan** totaled 45 thousand acre-feet which is 60 percent of average for this period. Last year runoff for this same period was 95 percent of average.

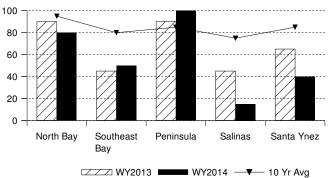
#### Precipitation

#### October 1 to date in % of Average



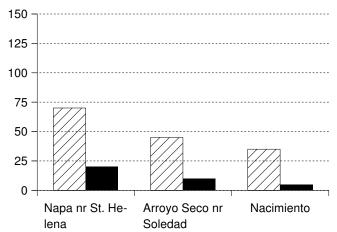
#### Reservoir Storage

Contents of major reservoirs in % of capacity



#### Runoff

#### October 1 to date in % of average



## SAN FRANCISCO BAY AND CENTRAL COAST REGIONS

**PRECIPITATION** - Seasonal precipitation (October 1 through the end of last month) on the **San Francisco Bay Region** was 60 percent of normal. Precipitation last month was about 110 percent of the monthly average. Seasonal precipitation at this time last year stood at 80 percent of normal.

Seasonal precipitation on the **Central Coast Region** was 45 percent of normal. Precipitation last month was about 55 percent of the monthly average. Seasonal precipitation at this time last year stood at 55 percent of normal.

**RESERVOIR STORAGE**- First of the month storage in 17 **San Francisco Bay Region** reservoirs was 463 thousand acre-feet which is 85 percent of average. About 65 percent of available capacity was being used. Storage in these reservoirs at this time last year was 85 percent of average.

First of the month storage in 6 **Central Coast Region** reservoirs was 185 thousand acre-feet which is 25 percent of average and about 20 percent of available capacity. Storage in these reservoirs at this time last year was 70 percent of average.

**RUNOFF**- Seasonal runoff of the Napa River in the **San Francisco Bay Region** totaled 14 thousand acre-feet which is 20 percent of average for this period. Last year, runoff for the same period was 70 percent of average.

Seasonal runoff of streams draining the **Central Coast Region** totaled 22 thousand acre-feet which is 5 percent of average for this period. Last year runoff for this same period was 40 percent of average.

#### SOUTH COAST AND COLORADO RIVER REGIONS

**PRECIPITATION** - October through April (seasonal) precipitation on the **South Coast Region** was 40 percent of normal. April precipitation was less than 45 percent of the monthly average. Seasonal precipitation at this time last year was 45 percent of normal. Seasonal precipitation on the **Colorado River-Desert Region** was 40 percent of normal. Precipitation during April was 20 percent of average. Seasonal precipitation at this time last year stood at 65 percent of average.

**RESERVOIR STORAGE** - May 1 storage in 29 major **South Coast Region** reservoirs was 1.1 million acrefeet or 75 percent of average. About 55 percent of available capacity was being used. Storage in these reservoirs at this time last year was 80 percent of average.

**RUNOFF** - Seasonal runoff from selected **South Coast Region** streams totaled 8 thousand acre-feet which is 15 percent of average. Seasonal runoff from these streams last year was 25 percent of average.

#### **COLORADO RIVER**

The April July inflow to Lake Powell is forecast to be 7.55 million acre-feet, which is 105 percent of average. The May 1 snowpack in the Colorado River basin above Lake Powell was 105 percent of average, lowest in the San Juan at 45 percent and highest in the Escalante at 245 percent. On May 1 combined storage in Lakes Powell, Mead, Mohave and Havasu was about 23.3 million acre-feet or about 60 percent of average. About 45 percent of available capacity was in use. Last year at this time, these reservoirs were storing 70 percent of average.

## MAJOR WATER DISTRIBUTION PROJECTS RESERVOIR STORAGE

(AVERAGES BASED ON 1951-2000 OR PERIOD RECORD)

RESERVOIR	CAPACITY 1,000 AF	AVERAGE STORAGE 1,000 AF	2013 1,000 AF	2014	RAGE AT EN PERCENT AVERAGE	PERCENT		
STATE WATER PROJECT Lake Oroville 3 538 2 877 3 040 1 877 65%								
Lake Oroville	3,538	2,877	3,040	1,877	65%	53%		
San Luis Reservoir (SWF	•	961	431	387	40%	36%		
Lake Del Valle	77	39	39	41	105%	53%		
Lake Silverwood	78	69	73	72	105%	93%		
Pyramid Lake	180	163	167	165	101%	92%		
Castaic Lake	325	294	284	250	85%	77%		
Perris Lake	131	111	72	63	57%	48%		
CENTRAL VALLEY PRO					200/	=00/		
Trinity Lake	2,448	2,020	2,142	1,281	63%	52%		
Lake Shasta	4,552	3,924	3,788	2,409	61%	53%		
Whiskeytown Lake	241	233	235	238	102%	99%		
Folsom Lake	977	729	682	547	75%	56%		
New Melones Reservoir	2,400	1,505	1,457	917	61%	38%		
Millerton Lake	520	366	330	228	62%	44%		
San Luis Reservoir (CVP	•	860	679	569	66%	59%		
COLORADO RIVER PRO								
Lake Mead	26,159	19,331	12,921	11,254	58%	43%		
Lake Powell	24,322	17,499	11,422	9,732	56%	40%		
Lake Mohave	1,810	1,670	1,723	1,702	102%	94%		
Lake Havasu	648	586	587	582	99%	90%		
EAST BAY MUNICIPAL U	JTILITY DISTF	RICT						
Pardee Res	210	183	184	163	89%	78%		
Camanche Reservoir	417	268	331	174	65%	42%		
East Bay (4 res.)	159	135	121	125	93%	79%		
CITY AND COUNTY OF	SAN FRANCIS	SCO						
Hetch-Hetchy Reservoir	360	175	281	250	143%	69%		
Cherry Lake	268	163	251	241	148%	90%		
Lake Eleanor	29	16	25	27	166%	93%		
South Bay/Peninsula (4 r	es.) 227	178	127	136	77%	60%		
CITY OF LOS ANGELES	S (D.W.P.)							
Lake Crowley	183	125	101	107	85%	58%		
Grant Lake	48	26	32	23	87%	48%		
Other Aqueduct Storage	(6 res.) 95	75	58	61	81%	64%		

#### **TELEMETERED SNOW WATER EQUIVALENTS**

May 1, 2014 (AVERAGES BASED ON PERIOD RECORD)

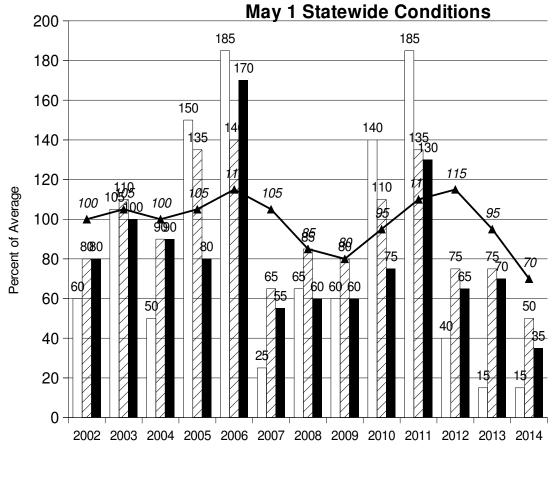
INICHES	OF WATER	

			_		R EQUIVALENT	
BASIN NAME		APRIL 1	Р	ERCENT	24 HRS	1 WEEK
STATION NAME	ELEV	AVERAGE	May 1 OF A	VERAGE	PREVIOUS	PREVIOUS
TRINITY RIVER						
Peterson Flat	7150'	29.2	0.0	0.0	0.0	0.0
Red Rock Mountain	6700'	39.6	_	_	_	_
Bonanza King	6450'	40.5	0.0	0.0	0.0	0.0
Shimmy Lake	6400'	40.3	0.0	0.0	0.0	0.0
Middle Boulder 3	6200' 6030'	28.3 29.9	0.0	0.0	0.0	0.0
Highland Lakes Scott Mountain	5900'	16.0	0.0	0.0	0.0	0.0
Mumbo Basin	5650'	22.4	0.0	0.0	0.0	0.0
Big Flat	5100'	15.8	<del>-</del>	<del>-</del>	— —	— —
Crowder Flat	5100'	<del>-</del>	0.0	_	0.0	0.0
SACRAMENTO RIVER						
Cedar Pass	7100'	18.1	0.0	0.0	0.2	0.0
Blacks Mountain	7050'	12.7	0.0	0.0	0.2	0.0
Sand Flat	6750'	42.4	0.0	0.0	0.0	0.0
Medicine Lake	6700'	32.6	0.0	0.0	0.0	0.0
Adin Mountain	6200'	13.6	0.0	0.0	0.0	0.0
Snow Mountain	5950'	27.0	0.0	0.0	0.0	0.0
Slate Creek	5700'	29.0	0.0	0.0	0.0	0.0
Stouts Meadow	5400'	36.0	_	_	_	_
FEATHER RIVER	0050					
Lower Lassen Peak	8250'		_	_	_	_
Kettle Rock	7300'	25.5 29.7	0.0	0.0	0.0	0.0
Grizzly Ridge Pilot Peak	6900' 6800'	52.6	0.0 0.0	0.0 0.0	0.6 0.3	0.0 0.0
Gold Lake	6750°	36.5	13.9	38.1	14.6	14.5
Humbug	6500'	28.0	0.0	0.0	0.0	0.0
Harkness Flat	6200'	28.5	0.0	0.0	0.0	0.0
Rattlesnake	6100'	14.0	0.0	0.0	0.0	0.0
Bucks Lake	5750°	44.7	0.0	0.0	0.0	0.0
Four Trees	5150'	20.0	0.0	0.0	0.0	0.0
EEL RIVER						
Hull Mountain	6461'	_	_	_	_	_
Noel Spring	5100'	_	0.0		0.0	0.0
YUBA & AMERICAN RIVERS						
Schneiders	8750'	34.5	21.5	62.4	22.0	20.5
Lake Lois	8600'	39.5	37.5	94.9	37.6	35.1
Carson Pass	8353'	_	11.1	_	11.7	11.4
Caples Lake	8000'	30.9	11.8	38.3	12.1	13.2
Alpha	7600'	35.9	1.6	4.5	2.3	2.0
Forni Ridge Meadow Lake	7600' 7200'	37.0 55.5	1.4	3.7	2.4	1.9
Silver Lake	7200 7100'	22.7	0.0	0.0	0.0	0.0
Central Sierra Snow Lab	6900'	33.6	0.0	0.0	0.0	0.0
Van Vleck	6700'	35.9	0.1	0.2	0.7	0.0
Huysink	6600'	42.6	1.2	2.8	1.8	1.0
Robinson Cow Camp	6480'	_	0.0	_	0.0	0.0
Robbs Saddle	5900'	21.4	0.0	0.0	0.3	0.0
Greek Store	5600'	21.0	0.0	0.0	0.0	1.1
Blue Canyon	5280'	9.0	0.0	0.0	0.0	0.0
Robbs Powerhouse	5150'	5.2	0.0	0.0	0.0	0.0
MOKELUMNE & STANISLAUS RIV						
Deadman Creek	9250'	37.2	15.1	40.6	16.1	15.0
Highland Meadow	8700'	47.9	16.1	33.6	16.4	15.0
Gianelli Meadow	8400'	55.5	15.5	27.9	15.8	15.7
Lower Relief Valley	8100'	41.2	5.5	13.4	6.0	6.0
Blue Lakes Stanislaus Meadow	8000' 7750'	33.1 47.5	12.5 9.8	37.8 20.7	12.6 10.4	12.5 10.6
Bloods Creek	7730 7200'	35.5	6.1	17.2	7.2	7.9
Black Springs	6500°	32.0	0.6	1.9	1.3	0.8
TUOLUMNE & MERCED RIVERS	0300	02.0	0.0	1.5	1.0	0.0
Dana Meadows	9800'	27.7	8.3	30.0	8.5	8.7
Slide Canyon	9200'	41.1	_	<del>-</del>	<del>-</del>	_
Tuolumne Meadows	8600'	22.6	_	_	_	_
Horse Meadow	8400'	48.6	16.6	34.1	18.2	17.1
Ostrander Lake	8200'	34.8	1.3	3.8	1.9	1.6
Lake Tenaya	8150'	33.1	_	_	_	_
White Wolf	7900'	_	0.0	_	0.1	0.0
Paradise Meadow	7650'	41.3	10.2	24.7	11.1	11.0
Gin Flat	7050'	34.2	0.2	0.5	0.4	0.0
Lower Kibbie Ridge	6700'	27.4	0.0	0.0	0.0	0.0
		4 4	I			

SAN JOAQUIN RIVER						
Volcanic Knob	10050'	30.1	12.1	40.1	12.4	11.2
Agnew Pass	9450'	32.3	3.2	10.0	3.7	4.3
Kaiser Point	9200'	37.8	0.2	0.4	1.0	0.0
Green Mountain	7900'	30.8	0.1	0.4	0.2	0.0
Devil's Postpile	7569'	_	2.2	_	2.7	0.0
Tamarack Summit	7550'	30.5	0.1	0.3	0.3	0.0
Chilkoot Meadow Huntington Lake	7150' 7000'	38.0 20.1	0.0	0.0	0.0	0.0
Graveyard Meadow	6900'	18.8	0.3	1.6	0.5	0.0
Poison Ridge	6900'	28.9	0.0	0.0	0.0	0.0
KINGS RIVER	2000	_0.0	0.0	0.0	0.0	0.0
Bishop Pass	11200'	34.0	_	_	_	_
Charlotte Lake	10400'	27.5	11.3	41.2	12.3	12.1
State Lakes	10300'	29.0	_	_	_	_
Blackcap Basin	10300'	34.3	19.8	57.6	20.0	19.1
Mitchell Meadow	9900'	32.9	12.4	37.7	13.0	11.9
Upper Burnt Corral	9700'	34.6	9.1	26.4	10.0	9.3
West Woodchuck Meadow	9100' 7600'	32.8 25.9	0.4 0.0	1.2 0.0	0.8 0.4	0.0
Big Meadows KAWEAH & TULE RIVERS	7600	25.9	0.0	0.0	0.4	0.0
Farewell Gap	9500'	34.5	_	_	_	_
Quaking Aspen	7200'	21.0	0.0	0.0	0.0	0.0
Giant Forest	6650'	10.0	0.0	0.0	0.1	0.0
KERN RIVER						
Upper Tyndall Creek	11400'	27.7	7.3	26.4	7.5	7.5
Crabtree Meadow	10700'	19.8	_	_	_	_
Chagoopa Plateau	10300'	21.8	0.0	0.0	0.1	1.8
Pascoes	9150'	24.9	2.8	11.2	3.5	3.2
Wet Meadows Tunnel Guard Station	8950' 8900'	30.3 15.6	0.0	0.0	0.0	0.0
Casa Vieja Meadows	8300'	20.9	0.0	0.0	0.0	0.0
Beach Meadows	7650'	11.0	0.0	0.0	0.0	0.0
SURPRISE VALLEY AREA	7 000	11.0	0.0	0.0	0.0	0.0
Dismal Swamp	7050'	29.2	15.0	51.4	15.9	15.0
TRUCKEE RIVER						
Big Meadows	8700'	25.7	0.0	0.0	0.0	0.0
Independence Lake	8450'	41.4	20.1	48.6	20.5	18.0
Squaw Valley	8200'	46.5	10.9	23.4	11.1	9.8
Independence Camp	7000'	21.8	0.0	0.0	0.0	0.0
Independence Creek Truckee 2	6500' 6400'	12.7 14.3	0.0 0.0	0.0 0.0	0.0 0.0	0.0
LAKE TAHOE BASIN	0400	14.5	0.0	0.0	0.0	0.0
Mount Rose Ski Area	8900'	38.5	8.0	20.8	8.8	9.1
Heavenly Valley	8800'	28.1	4.8	17.1	5.2	5.7
Hagans Meadow	8000'	16.5	0.0	0.0	0.0	0.0
Marlette Lake	8000'	21.1	3.1	14.7	3.6	4.0
Echo Peak 5	7800'	39.5	7.1	18.0	8.2	8.2
Rubicon Peak 2	7500'	29.1	2.3	7.9	2.6	2.4
Tahoe City Cross	6750'	16.0	0.0	0.0	0.0	0.0
Ward Creek 3 Fallen Leaf Lake	6750' 6250'	39.4 7.0	0.0 0.0	0.0 0.0	0.1 0.0	0.0 0.0
CARSON RIVER	0230	7.0	0.0	0.0	0.0	0.0
Ebbetts Pass	8700'	38.8	8.6	22.2	9.5	9.6
Horse Meadow	8557'	_	1.3		2.1	3.4
Monitor Pass	8350'	_	0.0	_	0.0	0.0
Burnside Lake	8129'	_	1.9	_	3.1	3.9
Forestdale Creek	8017'	_	13.4	_	13.8	13.4
Poison Flat	7900'	16.2	_	_	_	_
Spratt Creek	6150'	4.5	0.0	0.0	0.0	0.0
WALKER RIVER Leavitt Lake	9600'		24.7		24.7	23.6
Summit Meadow	9313'	_	0.0	_	0.0	0.9
Virginia Lakes	9300'	20.3	5.2	25.6	5.4	5.4
Lobdell Lake	9200'	17.3	0.0	0.0	0.0	0.0
Sonora Pass Bridge	8750'	26.0	7.1	27.3	8.0	8.1
Leavitt Meadows	7200'	8.0	0.0	0.0	0.0	0.0
OWENS RIVER/MONO LAKE				_		
Gem Pass	10750'	31.7	8.1	25.5	8.3	8.0
Sawmill	10200'	19.4	2.0	10.3	2.3	3.6
Cottonwood Lakes Big Pine Creek	10150' 9800'	11.6 17.9	0.0 0.0	0.0 0.0	0.0 0.0	0.0
Rock Creek Lakes	9800 9700'	17.9	0.0 —	U.U —	U.U —	0.0
South Lake	9600'	16.0	0.0	0.0	0.0	0.0
Mammoth Pass	9300'	42.4	13.0	30.7	13.4	11.8

NORMAL SNOWPACK	( ACCUMULATIO	N EXPRESSED AS	A PERCENT	OF APRIL 1ST	AVERAGE
AREA	JANUARY	FEBRUARY	MARCH	APRIL	MAY
Central Valley North	45%	<b>15</b> 70%	90%	100%	75%
Central Valley South	45%	15 <sup>70%</sup> 65%	85%	100%	80%
North Coast	40%	60%	85%	100%	80%

## DEPARTMENT OF WATER RESOURCES CALIFORNIA COOPERATIVE SNOW SURVEYS



Snowpack ZZZ Precipitation Runoff Reservoir Storage

#### **SNOWLINES**

**Next year's** Western Snow Conference will be held at Grass Valley, CA April 20-23, 2015. Mark your calendar for this event as it won't be back in our region for another four years. For further information contact Frank Gehrke at 916-574-2635 or <a href="mailto:gridley@water.ca.gov">gridley@water.ca.gov</a> Information is available on the web at http://www.westernsnowconference.org.

**On this month's cover**- Depicted on this month's cover is the Airborne Snow Observatory Twin Otter. The ASO project is a joint effort by NASA/JPL and the Snow Surveys Program to use airborne LIDAR and imager to produce very accurate maps of snow water equivalent.